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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,869	03/01/2002	Quinn K. Tong	1988.EEM	7273

7590 05/26/2005

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EXAMINER

BUTTNER, DAVID J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,869

Applicant(s)

TONG ET AL.

Examiner

David Buttner

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-14,16-21 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-14,16-21 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Newly issued 6,833,629 having some common inventors with the instant application requires a new rejection. The finality of the last office action is withdrawn due to the emergence of the new reference.

Claims 1-5,8-14,16-21 and 24-29 rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1-5,8-14,16-21 and 24-29 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 12/9/04. In that paper (last page), applicant has stated reactive diluents would harm the invention, and this statement indicates that the invention is different from what is defined in the claim(s) because claims 1 and 24 specifically call for the inclusion of reactive diluents.

Claims 1-5,8-14,16-21,25 and 27-29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 uses improper Markush language in describing e). "Consisting of" is necessary in Markush phrase.

Claims 1-5,8-14,16-21 and 24-29 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ma '629.

Ma discloses an underfill composition, that includes two formulations of different curing temperatures. Solvents, fluxing agents and other additives can included (col 6 line 34). A pyromellitic anhydride-phenylmethylimidazole adduct is also present (col 6 line 25). Inherently, the composition would produce a smooth nontacky surface.

Note that a statement of common ownership will only remove obvious type rejections - not anticipation rejections (MPEP 706.02(I)(1)).

Claims 1-5,8-14,16-21 and 24-29 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6833629 in view of Shi '896.

Ma claims an underfill that contains curable resins, applicant's imidazole-anhydride adduct an optional solvent. Ma's claims do not call for fluxing agents.

Fluxing agents are well known in underfill compositions. Shi (col 3 line 23) suggests fluxing agents in similar compositions. It would have been obvious to include a fluxing agent in Ma's claimed composition for its well known effect. Note that Ma also intends fluxes to be present (col 6 line 35).

Applicant's arguments filed 5/9/05 have been fully considered but they are not persuasive.

The previous rejections are overcome because the specific imidazole-anhydride adduct now required is not believed suggested. However, the newly cited Ma reference does employ the specific adduct.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone

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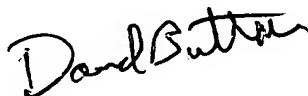
number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Buttner

DAVID J. BUTTNER
PRIMARY EXAMINER

5/24/05

A handwritten signature in black ink that reads "David Buttner". The signature is written in a cursive, flowing style.